ABSTRACT OF THE DISCLOSURE

A protocol for replicating replicas in a sync community. Each replica maintains a knowledge that represents changes that the replica is aware of. Each replica does not typically maintain knowledge about other replicas. The protocol includes messages that include knowledge about changes on the various replicas. Using the knowledge, the replicas can enumerate changes and send the changes using asynchronous messages that do not need to be received in any particular order. The protocol enables filters to ensure that a valid replication is possible using a minimum knowledge argument. The protocol also enables replicas to partially replicate using filtered knowledge.